VOL. XX, NO. 1 BULLETIN 1924-1925
OF THE
OHIO STATE UNIVERSITY AGRICULTURAL COLLEGE EXTENSION SERVICE
H. C. RAMSOWER, Director, Columbus

Home Care of the Sick

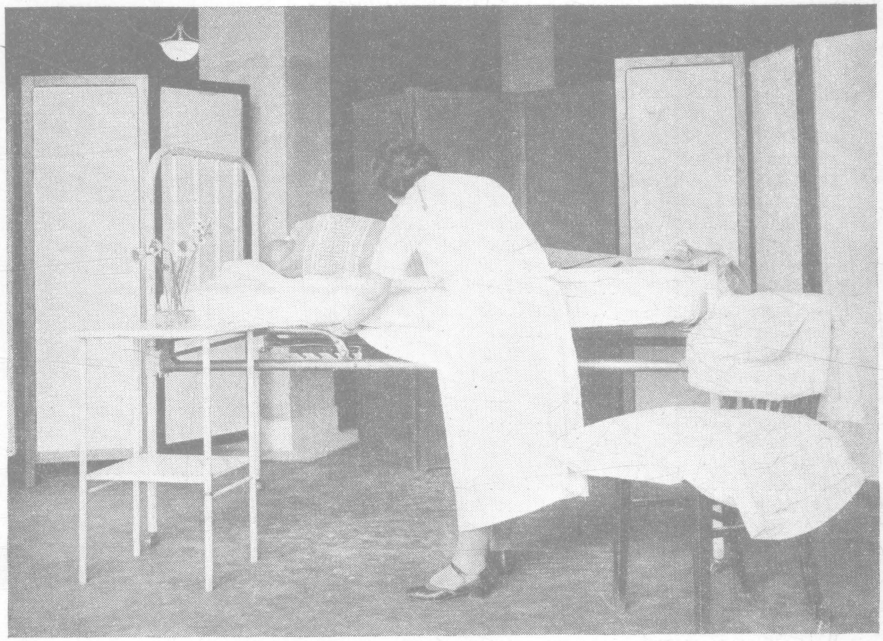


Fig. 1—Changing the bedding with the patient in bed.

By WANDA PRZYLUSKA
Health Specialist in Home Economics
The Ohio State University

THE OHIO STATE UNIVERSITY, COLUMBUS, COOPERATING WITH UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE—H. C. RAMSOWER, DIRECTOR
FREE—Cooperative Agricultural Extension Work—Acts of May 8 and June 30, 1914.

Contents

Foreword

Serious consideration of the problems involved in the home care of the sick emphasizes very strongly the need of attention to the prevention of disease, the care of health, and the correction of defects.

Sickness can be prevented in many cases. Much preventive work should begin early in a child's life, even before his birth. Perfect physical health should be the natural heritage of every child.

Even with the heritage of good health, attention must be given to the formation of good habits in regard to food, sleep, exercise, proper elimination, and fresh air. Faulty habits once established may cause untold harm and are often difficult to change.

Many children have physical defects such as enlarged adenoids, diseased tonsils, or improper development of teeth. Such defects are a handicap in the normal development of the child and should be corrected as early as possible.

Regular physical examination, not because one is sick, but to find out if every part of the human machinery is functioning as it should, would help both children and adults greatly. Many people boast that they are never sick in bed, yet there are many days when they do not feel as they should. Their efficiency is lessened, their work suffers, they cannot get all the joy out of life that they could if they felt perfectly well.

But until much more attention is given to the prevention of disease, to the establishment of health habits, and to the correction of defects, it will be necessary for us to spend much time and energy in the care of the sick. Much of this must be done in homes. In many cases the services of a trained nurse will not be available. This bulletin has been planned to aid the wife or mother in carrying out the doctor's directions with a minimum expenditure of time and strength, and a maximum of comfort for the patient.

Home Care of the Sick

The Doctor

Every sick person should be under the care of a reputable doctor. His orders must be followed. He should be the only one to prescribe medicine or to order treatment.

It is a dangerous practice in sickness to follow the advice of friends and relatives who are not doctors. They mean well, but human machinery is complicated. It takes years of study and experience to understand the workings of the body, and only persons with adequate training should be allowed to treat it.

The Nurse

In case of prolonged sickness when the patient has to be cared for at home and no trained nurse is available, some one person should do the nursing and be considered "in charge." The nurse should be well, calm, confident, cheerful, and tactful. The nurse should if necessary be assisted by other members of the family, but she should take all of the doctor's orders directly and be the one to report to him. She should be responsible for all treatments and all medication.

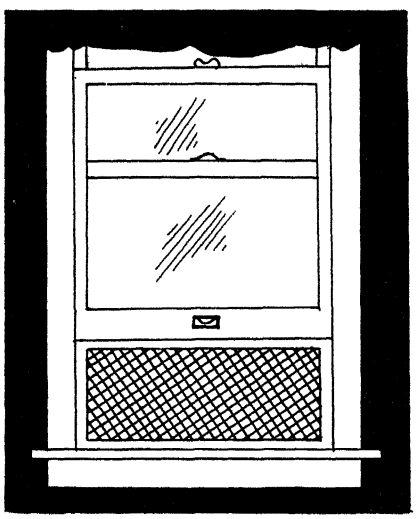
The nurse should take the best possible care of herself in order that she may have strength and health with which to care for the patient. Otherwise the sickness might last longer than the physical endurance of the nurse.

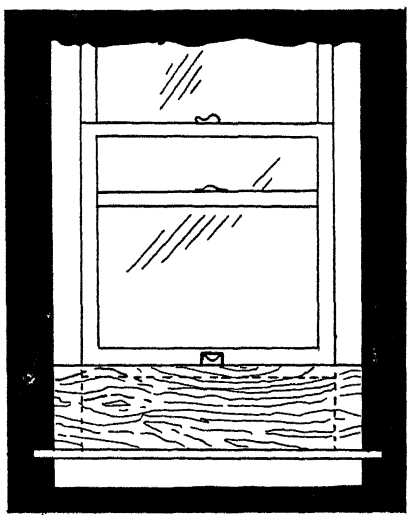
Strict obedience must be paid to the laws of hygiene in order to preserve a sound physical condition in spite of hard work and constant exposure to disease. Personal cleanliness is most important. Wash hands frequently. Wear clothing which is suitable, washable, comfortable, and which allows perfect freedom of motion. Wear comfortable shoes. Have plenty of fresh air when sleeping and during the day. Have an adequate amount of rest, if possible 7 hours of uninterrupted sleep. Eat regularly and slowly, select your diet carefully, drink plenty of water. Pay strict attention to the elimination from your body, and to the correction of slight ailments. All this will help to preserve the sound health of the nurse and to make her work much more efficient.

The nurse must plan her work carefully. She will find that some of her household duties must be neglected. She must know how to choose between the important duties and those less important.

The Sick Room

The sick room need not necessarily be large but it should be sunny, airy, and comfortable. Sick rooms are often overheated. A doctor should be consulted as to the temperature of the room required for the patient. Light should not shine directly into the patient's eyes. Drafts may be avoided by the following means: a screen or clothes horse with a sheet or blanket thrown over it and placed in front of an open window; a muslin screen placed in the opening of the window (Fig. 2) ; a board nailed to the lower sash of the window and the window raised so that the lower end of it is below the upper end of the board (Fig. 3) ; a string tied at the side





Two ways to prevent drafts
Fig. 2—Muslin screen. Fig. 3—Board nailed to window sash.

of the bed from the head to the foot, and a sheet or blanket thrown over the string.

Use small washable rugs on the floor and take them out to clean. Remove all unnecessary furniture and ornaments as they take too much air space and their dusting and cleaning disturbs the patient. Keep sick room utensils out of the room and bring them in when needed.

The Patient's Bed

Making the Bed Higher.—The bed should be comfortable, single if possible, and high enough (about 26 inches from the floor to the top of the mattress) to make the nurse's work easier. It takes a great deal more strength and energy to work on a low

surface. The most satisfactory method of raising a bed is shown in Fig. 4. Take off the springs and place a board across the bed at the foot and another across at the head of the bed. Nail a box to each end of the board. Nail cleats to the boards to prevent boards from sliding. Place springs on the boxes. This way the bed can be moved easily.

Fig. 4—Raising the bed springs by the use of boxes and boards.

Another method of making the bed higher is to place slightly hollowed blocks under each leg of the bed, as shown in Fig. 5. An extra mattress placed on the bed will make it higher.

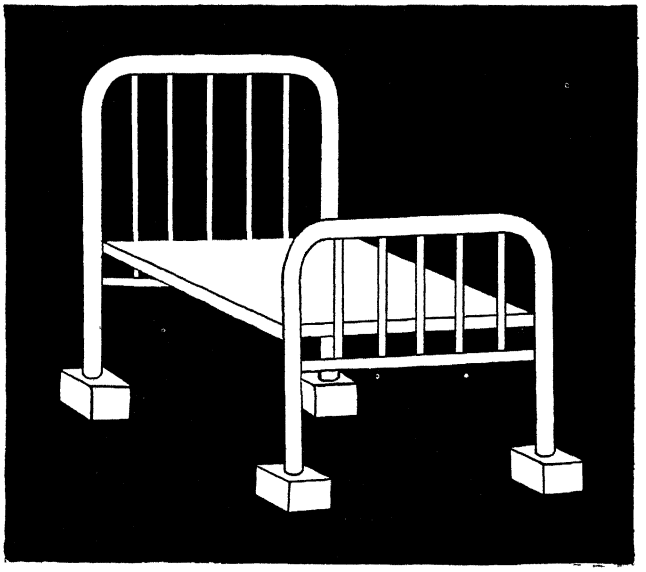


Fig. 5—The bed may be raised to desirable working height by placing blocks under the legs

Mattress and Bedding. — A good mattress is a necessity. A horse hair mattress is the most comfortable and most hygienic, but a good cotton mattress may be used. Feather beds overheat the patient and should not be used in the sick room. The mattress should be pro-

tected by a mattress cover or pad, made from some firm washable material.

Three sheets are needed to make a bed for the sick; a bottom sheet to be used over the mattress cover; a top sheet under the blanket, and a draw sheet which is a folded sheet put tightly across the bed. The sheets should be one yard longer and one yard wider than the mattress so as to tuck them in well at the top and both sides of the mattress. In case of lack of control of the bowels or bladder, or of severe discharges, a rubber sheet is used under the draw sheet.

Blankets should be light in weight. Wool blankets are the best. Heavy spreads should be avoided because the weight tires the patient. Sheets may be substituted for a spread. Several pillows, different in size, will add greatly to the comfort of the patient.

To Make an Empty Bed for the Patient.—It is important to save one's energy when working, therefore steps should be saved in making the bed. According to the following method, one side is completely finished before starting to work on the other side of the bed. Even when there is no sickness this method should be followed in order to save time and strength. When there is no sickness, omit the draw sheet.

Cover the mattress with the mattress protector. Place the sheet over that, tuck in about 18 inches of it under the mattress at the head of the bed. Fold corner envelope style, and tuck in the sheet on the side of the bed well under the mattress. Place the rubber sheet, if needed. This should extend from under the pillow to below the patient's knees. Tuck it well under the mattress.

Place the draw sheet over the rubber sheet and tuck it in. The draw sheet is so called because it can be drawn from one side to another when it gets warm under the patient, thus providing a cooler place to lie on. It helps also to keep the bed clean and smooth without changing it entirely.

Place the top sheet on the bed, with the hem wrong side up. Allow the upper end of the sheet to come to the edge of the mattress, tuck this top sheet in at the foot of the bed in the same way that the under sheet was tucked in at the head. Place the blanket and spread over the top sheet; turn the upper end of the sheet over these covers, fold the lower part under the mattress at the foot of the bed, tuck in ends envelope style. Do not tuck the blanket under the mattress on the sides.

Go to the other side of the bed, throw covers, top and draw sheets back. Stretch and tuck in the bottom sheet, then the rubber

and draw sheets, and adjust covers the same as at the first side. The edge of the covers at the head of the bed should be about 3 inches from the end of the mattress. Shake the pillows and see that they are well into the corners of the pillow cases before placing them on the bed.

To Change Bedding with Patient in Bed.—Take pillows away, remove the spread, turn the patient to one side, fold the covers over the patient. Roll the draw sheet towards the center, then roll the bottom sheet the same way. Fold a clean sheet lengthwise to the middle, lay the fold against the fold of soiled sheet. Tuck the clean sheet under the mattress at the head of the bed and then at the side. Fold half of the draw sheet, lay the fold next to the fold of the bottom sheet. Tuck the end under the mattress (Fig. 1).

Roll the patient over on clean sheets, go to the other side of the bed, pull off soiled sheets, rolling them from the center, straighten and adjust clean ones. Put a clean sheet over the patient, pull the soiled one and the blanket from underneath. Put the blanket over the clean top sheet, and finish the bed making.

If the patient can not be turned on the side, the bottom sheet can be changed by rolling it down from the head of the bed as far as the shoulders, then placing the rolled clean sheet over the uncovered part of the mattress. One person then can slightly raise the patient's shoulders and hips while the other pulls the sheets down. It takes two people to change the bed in this way.

It is not necessary to change the bed completely every day unless the bedding is soiled. Sheets should be straightened out at least every morning and night, and the bed thoroughly brushed with the palm of the hand to remove crumbs. Care must be taken not to jar the bed when making it, as the jar might annoy the patient. When pulling the sheets out, the edge of the mattress should be lifted.

Pillows should be shaken and turned frequently. They should be placed far under the patient's shoulders and back, forming a gradual elevation. When removing the pillows place the arm under the patient's back and shoulders, raise the patient gently, and with the other arm remove the pillow towards you. The patient can often help by placing one arm over the nurse's neck and the other under her arm. When doing this the patient should rest the head on the nurse's shoulder and prevent the mouth contact which would be unavoidable if both arms were placed around the nurse's neck.

To Elevate the Foot or Head of Bed.—To elevate the foot of the bed in hemorrhage from the bowels as in typhoid, or a hemor-

rhage from the uterus as in childbirth, raise the foot of the bed on blocks, a chair, or anything which will keep it higher than the head.

To elevate the head of the bed, which is often done after some operations, raise the head of the bed on blocks. To keep the patient from slipping see the description under "Back Rest" in the chapter on "Sick Room Appliances," page 13.

Care of the Patient

A Cleansing Bath.—A cleansing bath is more necessary for a patient than for a well person. The excretions from the pores of the skin contain organic substances which will decompose and give rise to unpleasant odors if they are not removed. Bathing stimulates the circulation of the blood and is very refreshing to the patient. Water should be changed during the bath. The bath should be given an hour or two after breakfast or in the evening before the patient goes to sleep. The room should be warm and free from drafts.

Have everything at hand so that it is not necessary to stop in the middle of the bath to get extra things. Use a foot tub or a clean dish pan instead of a bowl, so as to have a large quantity of water. A tub or pan with handles will be easier to carry. A tray or a basket with the patient's toilet articles in it will save many steps. The basket should contain: a piece of old blanket, three towels (a soft one for the face and two bath towels), two wash cloths, a piece of ivory or castile soap, whisk broom for brushing the mattress, a tin of talcum powder, comb and brush, scissors and nail file, tooth brush, dentifrice, and a glass.

Place the pan with the water on a chair or table near the bed. Get clean sheets and pillow cases if necessary, and a fresh nightgown. Put these to air and warm, then get the patient ready.

First, clean the patient's teeth and give a bed pan to the patient. If the patient is chilly apply a hot water bottle to the feet, then remove the top sheet, pulling it down from under the blanket and remove the patient's nightgown.

Use a piece of blanket or a bath towel underneath the part of the body which is being washed, and move the cloth from one part to the other as you work. A patient should never be exposed more than absolutely necessary. The bath may be given entirely under cover, so that the surface of the body is not exposed to the air. The temperature of the water for a cleansing bath should be warm enough to be comfortable to the patient.

Bathe the patient in the following order: face, neck, ears, chest and abdomen, legs and feet. Change the water, turn the patient on the side, and bathe the patient's back and rectum. Dry each part carefully as it is washed. Keep the water warm throughout the bath. When washing patient's feet place the pan on the bed so the patient may be able to put the feet into it. Wipe dry between the toes. Dust talcum powder under the arms, between the thighs and toes, and under the knees.

After the bath put the warmed nightgown on the patient, clean the finger and toe nails, and comb the hair. Change sheets and finish the bed as described.

To Change a Nightgown.—Pull the nightgown up from the bottom, lift the knees and bring patient's feet near the body. The patient can help to raise the hips by pressing on the heels. Work the nightgown up to the neck, bend one arm and remove the sleeve. Lift the nightgown over the head from under the shoulders and off the other arm. To put on a clean gown draw the sleeve over one arm, slip the nightgown over the head and under the shoulders, bend the arm and draw it through the sleeve in the same manner as the other arm. Pull the gown down smoothly under the patient.

Care of the Hair.—Spread the towel over the pillow, part the patient's hair in the center. Brush and comb the hair slowly, beginning at the ends of the hair. Hold the hair firmly in the hand, meanwhile, so as not to pull. Braid the hair over each ear, pin the braids across the forehead.

Washing Patient's Hair While in Bed.—The hair of a bed patient may be washed in bed. Protect the bed under the patient's head with a piece of rubber sheeting and a towel. Let the end of the rubber sheeting hang into a pail on the floor, forming a trough. Turn the patient diagonally in bed with the patient's head over the edge of the bed. Be sure that the patient is in a comfortable position. Place the basin on a chair or stool next to the bed. The patient's head should be a little above it. Wash hair, using soap which has been dissolved by boiling. Rinse carefully. Do not let the water run under the patient's back. Dry the hair by rubbing with warm towels and fingers.

Ridding Patient's Head of Vermin.—For vermin in the hair apply a mixture made of equal parts of kerosene and olive oil. Other cooking oils may be substituted for olive oil. Wrap the head in a towel and leave it this way for several hours or overnight. This

remedy does not injure the hair, but the patient should not be close to the open fire, as kerosene is highly inflammable. Tincture of quassia or tincture of larkspur can be used instead of the kerosene mixture. To remove nits apply hot vinegar and then give a good shampoo. These treatments may have to be repeated at intervals of 2 or 3 days.

Care of the Mouth.—The proper care of the mouth contributes much to the patient's comfort. The patient should clean the teeth with a tooth brush after each meal and at night. If the patient is too ill to do so, then the nurse must clean the patient's mouth. A little lemon juice in the water or salt water (one teaspoonful of salt to a pint of water) makes a good mouth wash. The mouth of a fever patient must be cleansed every few hours day and night. If possible, use a small soft tooth brush, and do not forget to clean the tongue, gums, and roof of the mouth. Apply olive oil or glycerine and lemon (the juice of 1/4 lemon to 1 ounce of glycerine) to lips to prevent cracking.

Bed Sores.—To prevent bed sores, the patient's position must be changed frequently. The skin of the back must be kept dry and massaged to help the circulation. Moisture and pressure are responsible for most bed sores. If a bed sore forms consult your doctor about treatment.

Daily Routine in the Sick Room

The daily routine will change slightly according to the doctor's orders, but a few general points will always remain the same.

The patient's temperature should be taken the first thing in the morning. Then give the patient a bed pan to pass urine. Often the bowels will also move at this time. Wash the patient's face, hands, and teeth next. Straighten the bed, adjust pillows, and bring the patient's breakfast.

After breakfast the patient may rest, unless some treatments were ordered to be given at this time. The nurse may then attend to other duties.

Give the patient a bath an hour or two after breakfast. Then change or re-make the bed. Clean the room, being careful not to jar the bed. Avoid unnecessary noise, and above all, do not stir up a dust. Sweep the floors with a broom covered with a dampened or oiled cloth, and dust the furniture in the same way. If a carpet covers the floor, spread small pieces of wet paper on it and then sweep with the broom.

Flush the room thoroughly with fresh air after it has been cleaned. This may be done by placing an open umbrella over the patient and covering it with a light weight blanket or a sheet, forming a tent. Then all the windows may be opened to make a strong draft in the room. On cold days, extra covering should be used over the patient, and a hot water bottle or soap stone placed at the patient's feet during this time.

Turn the patient's pillows frequently during the day. See that the sheets and the nightgown are smooth. Change the patient's position often but always provide proper support. Give treatments, meals, and medicine at the time ordered by the doctor.

Consult the doctor as to number of visitors and length of time they may stay. Often too many visitors at one time, or too long visits, tire or excite the patient, causing restlessness or sleeplessness or a rise in temperature.

Extra covering may be needed by the patient during the night, especially during the early hours of the morning. Place this without awakening the patient.

Helpful Hints in Serving Food for the Sick

The patient sometimes does better with small amounts of food served more frequently than three times a day.

Very large quantities of food served to a patient may cause loss of appetite. It is better to serve less at one time, and bring a second helping if desired.

Meals should be served at regular intervals; if delayed the patient's appetite may be gone.

Do not discuss the food to be served with the patient. Let each meal be a surprise.

Make the tray attractive; do not crowd things on it. Use attractive china, silver, and linen and some simple decoration as a flower or a little bit of green.

Do not fill glasses, cups, or bowls too full, as the liquids may spill. Serve food in a form easy for the patient to handle.

Foods to be served hot should be hot and not lukewarm; foods to be served cold should be cold.

Do not allow the food or dishes to stand for any length of time in the sickroom. Remove them as soon as possible after the meal. If anything must remain for a short time it should be covered.

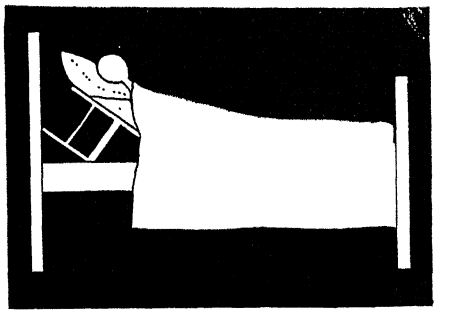


Fig. 6—Back rest made from a kitchen chair.

Sick-room appliances are rather costly if purchased, but many can be made at home with little effort and cost.

Back Rest. — A patient allowed to sit up in bed will need a back rest. This can be made by reversing a kitchen chair and placing pillows over it (Fig. 6).

Another way is to place a board, suitcase, or washboard at an angle at the head of the bed, with the lower end held firmly in place by a long piece of cloth around it and tied to the bedpost (Fig. 7).

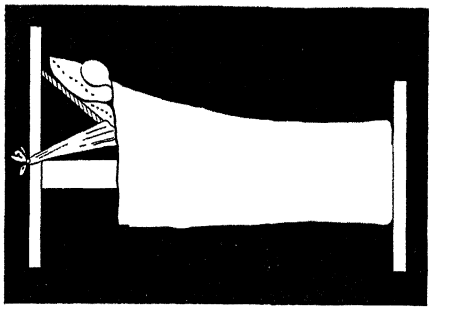


Fig. 7—Back rest made from a wash board held in place by a strip of cloth.

To prevent the patient from slipping in bed when back rest is used or when the head of the bed is raised, place a folded pillow under the patient's knees, close to the buttocks. Hold the pillow in place by a sheet folded diagonally or by means of a long strip of cloth tied to the bedposts at the head of the bed (Fig. 8).

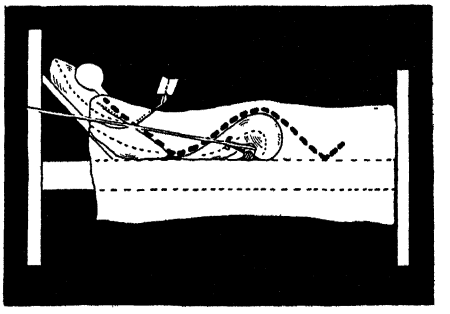


Fig. 8—Using a pillow and a stick to keep the patient from slipping down in bed.

Another plan is to place a broomstick or a small swingboard, covered with a pillow, under the patient's knees against the buttocks and to tie a piece of cloth or string to each end of the stick or board and the other end of the cloth to the bedpost. This kind of a swing may also be placed at the patient's feet instead of under the knees.

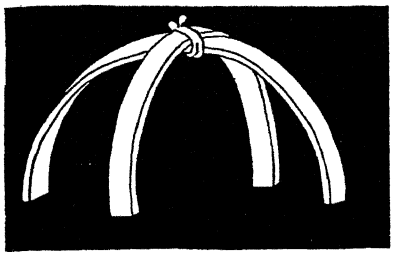


Fig 9—A cradle made out of two halves of a barrel hoop

Devices to Relieve Weight of Covers.—The weight of the covers may be relieved by making a bed cradle from crossed halves of hoop, tied together (Fig. 9) and placed under the covers.

Another way is to tie a string from the head to the foot of the bed. A loop made of a piece of tape with a large safety pin attached is then placed over this string. Covers are lifted by means of this pin, and the loop moved where the lifting of the weight is needed (Fig. 10).

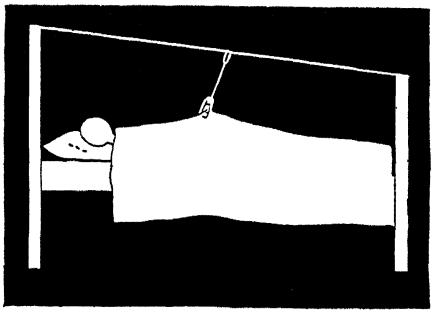


Fig 10—A string, a loop and a safety pin will hold covers off the sore spot

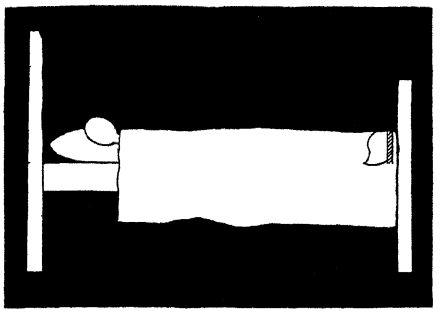


Fig 11—A board and a pillow will relieve the weight of covers on the patient's feet

To relieve the weight of covers on the feet, a board may be placed at the foot of the bed, between mattress and bedstead. The covers are brought over this board before tucking them under the mattress (Fig. 11).

The covers may be also pleated at the foot of the bed and the pleat brought slightly forward before tucking the covers under the mattress (Fig. 12).

A line tied to the foot of the bed will help the patient to turn or raise herself in bed. (Fig. 13).

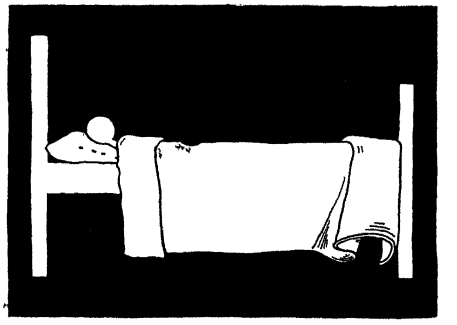


Fig 12—A fold in covers gives more room for patient's feet

Croup Tent.—An umbrella covered with a blanket as described in directions given for airing the room may be used as a croup tent, with the steam provided from a kettle containing boiled water.

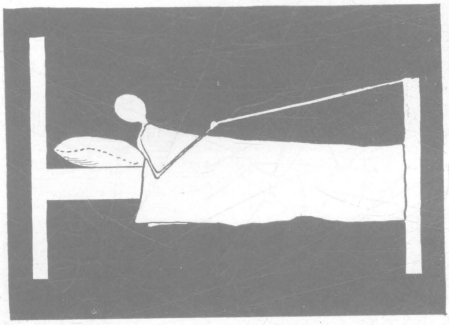


Fig. 13—Making a string bear the weight when the patient wants to sit up or turn.

Bed Table.—A table for the patient can be made by using three sides of a light wooden box. The two sides can rest on the bed, on either side of the patient, while the third forms the table.

Or a board may be placed across the bed and supported on a chair on each side of the bed.

Stupe Wringer.—A strong towel may be used for wringing out hot applications. Place the material for the stupe in the towel, then dip it in the hot solution, holding the ends of the towel up, so as to keep them dry. Twist the ends by changing from one hand to another (Fig. 14), then stretch the towel. A stupe wringer may be made by putting a wide hem on each end of a stout piece of muslin. A stick should be inserted into each hem, and the stupe wrung out by twisting the sticks. A potato ricer may also be used.

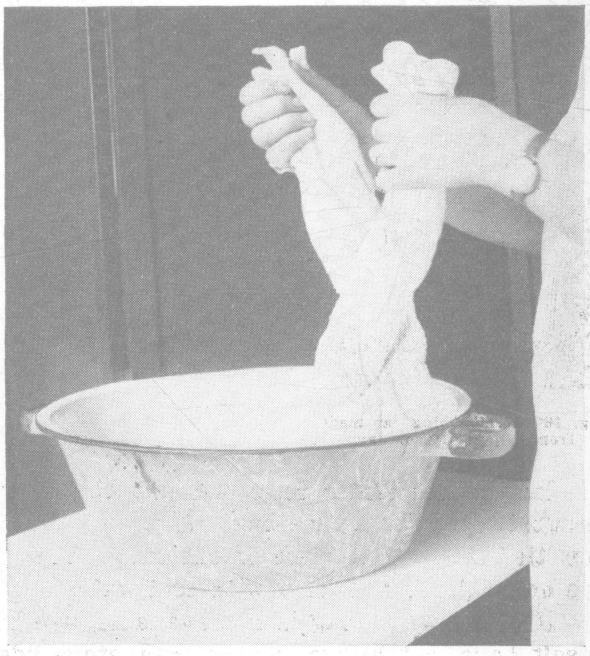


Fig. 14—Towel used as a stupe wringer—place stupe in towel and hold ends up to prevent scalding.

Bed Pan.—In an emergency, a bed pan can be made out of a dripping pan with a small board covering part of it. To hold the board in place cleats should be nailed underneath on three sides (Fig. 15). A bed pan should always be warmed by rinsing with hot water, before giving it to the patient. The surface of the bed pan which fits under the patient's buttocks should be dry or covered with a piece of folded cloth.

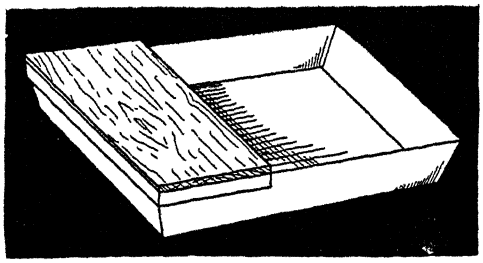


Fig. 15—A bed pan made from a dripping pan.

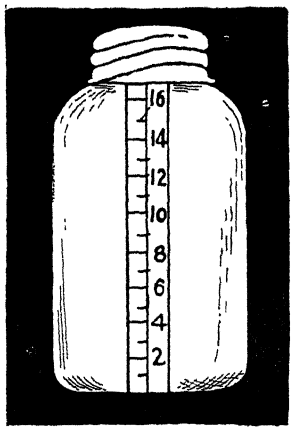


Fig. 16—A measuring jar made from a quart Mason jar.

Measuring Jar.—A measuring jar may be made from an ordinary quart Mason jar with a strip of adhesive tape pasted vertically on the outside of it and ounces marked on the adhesive tape. Two tablespoons are equal to 1 ounce. Pour into the jar 2 tablespoons of water at a time and mark on the level with the water (Fig. 16).

Ice and Hot Water Bags.—A suitable waterproof material may be substituted for an ice bag. A piece of an inner tube with the ends tied securely, a piece of oilcloth, rubber sheeting, a bladder, or a hot water bottle filled with cold water may be used.

If a hot water bag is not available, use hot flannel, hot bran or salt bags, hot bricks, soap stones, stove lids, or Mason jars or jugs filled with hot water. Take care when using external heat not to burn or scald the patient. Hot water bags, bricks, soap stones, or Mason jars should always be wrapped securely.

Do not fill a hot water bag or an ice bag too full. Expel the air by pressing the bag until water shows in the opening, then put in the stopper.

Pillows.—Pillows are used as supports for different parts of the body, as well as under the patient's head. If there is danger of soiling the pillow because of discharges, the pillow should be covered with rubber sheeting or oilcloth under the pillow case.

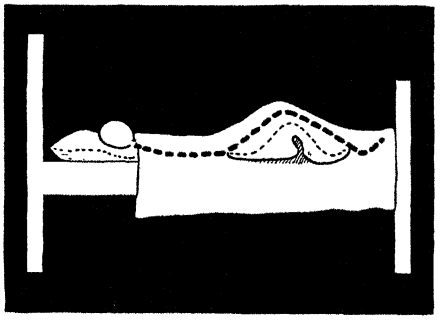


Fig. 17—Pillow under knees affords rest and relaxes abdominal muscles.

A pillow folded crosswise and placed under the knees against the patient's buttocks will relieve the tension of abdominal muscles (Fig. 17).

A pillow placed against the patient's back will give support when the patient is lying on the side (Fig. 18). A small pillow or pad between the patient's shoulders will often relieve tension. A patient has little strength, and therefore pillows should be so placed as to provide a proper support in any position.

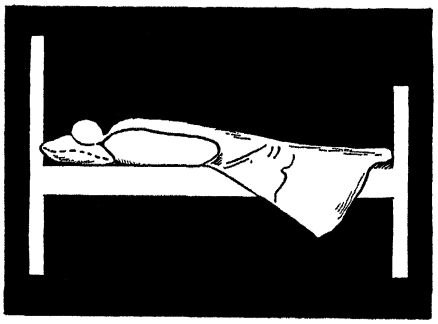


Fig. 18—Pillow along spine to give support when patient is turned on his side.

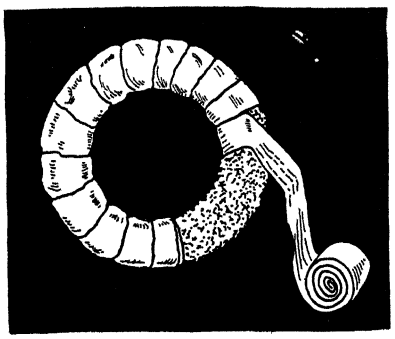


Fig. 19—A ring made out of cotton batting and bandage.

Cotton Rings. — Rings may be made out of cotton and covered with cloth or bandage (Fig. 19). They are used to support the heels or elbows, and to prevent pressure. They may also be used under the patient's buttocks for the same purpose, but rubber rings are usually purchased for that purpose.

Newspapers.—Newspapers are very helpful in the sick room. Several layers of newspapers covered with a piece of cloth may be placed under the patient when giving an enema or bed pan, or in case of discharges, to protect the bedding. Pads may be made from several thicknesses of newspapers, covered with a layer of absorbent cotton and cheesecloth or old sheeting. Pads made in this way if ironed with a very hot iron are used in confinement cases as bed protectors.

Newspapers should never be placed under the patient without covering them, and should never be used as a substitute for toilet paper.

Drinking and Feeding Tubes.—When feeding a patient provide a drinking tube for the liquids. The tube may be made out of macaroni or a heavy straw, if a glass tube cannot be obtained. A little toy teapot may also be used. There are large tubes for use in feeding the patient soups and gruels.

Handkerchief Substitutes.—All things used for the patient must be kept very clean. In case of a contagious disease everything used in the sick room must be boiled or disinfected. If there are discharges from the nose or throat small pieces of soft cloth, paper napkins, or toilet paper should be used instead of handkerchiefs. These pieces should be deposited immediately after using in a paper bag, and burned.

Sick Room Record

Do not trust the memory when taking care of the sick, but write down everything concerning the patient. Always state the hour and the date. Ask the doctor to write his orders.

Sample of record:

July 6, 1924

7 A. M. Temp. 98.4
4 ounces of urine, cloudy

7:30 A. M. Breakfast—1 cup cocoa, 1 slice toast, juice from 1 orange

8 A. M. Medicine—2 ounces

and so on through the day and night.

Temperature, Pulse, and Respiration

By the body temperature we mean its degree of heat measured, in America, by means of a Fahrenheit thermometer, which may be placed in the mouth, under the arm, or in the rectum (Fig. 20). The heat of the body may be increased by the digestion of food and by exercise. Heat is lost through the skin surface by evaporation and by perspiration, and through the lungs by expired air.

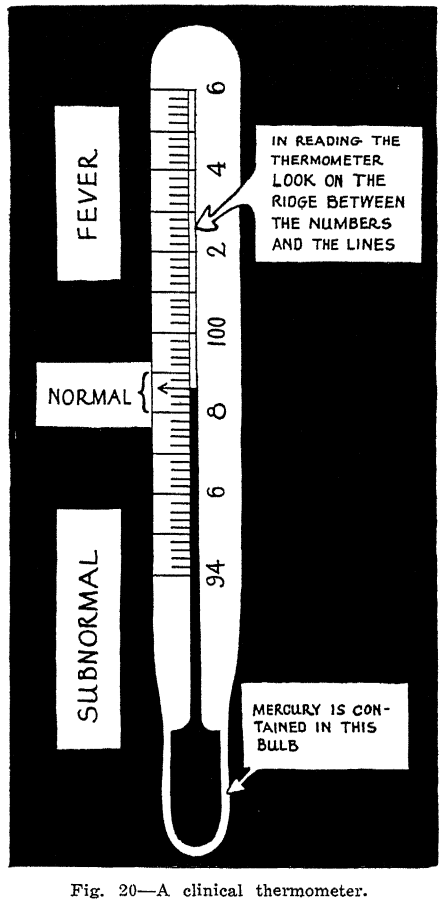


Fig. 20—A clinical thermometer.

In health, the temperature varies slightly at different times of the day, ranging from 98 degrees to 99 degrees F. When the temperature is not normal it means that the patient should be under a doctor's care. If the temperature changes suddenly notify the doctor at once.

Children naturally have a higher temperature than adults, and in old age the temperature is usually below normal. The temperature may be reduced by drugs and by applications of cold such as baths, packs, and compresses. It may be raised by hot drinks, drugs, external heat, and hot injections.

To take a patient's temperature, wash the thermometer in cold water, wipe with a piece of cotton, and shake until it registers at 96 degrees. Place the thermometer in the patient's mouth (if the temperature is to be taken by mouth), put the bulb under the tongue, and instruct the patient to keep the lips closed. Be sure the patient did not have a hot or cold drink before placing the thermometer. The time required to register the temperature is usually marked on the thermometer. Remove the thermometer, read and record the temperature, wash the thermom-

eter first with soap and cold water and then with a disinfectant solution such as 70 per cent alcohol, 5 per cent carbolic acid, or 2 per cent lysol solution.

The temperature per rectum is usually about one-half to one degree higher than by mouth. Grease the bulb of the thermometer before taking the rectal temperature. The axilla temperature is usually one-half to one degree lower than mouth temperature. Dry the armpit, place the bulb of the thermometer under the arm, then place the hand of the arm under which the thermometer is on the opposite shoulder. This will keep the thermometer between two folds of the skin. In taking temperature by axilla or rectum leave the thermometer in place for five minutes at least.

The pulse is an expansion and contraction of an artery. It is almost impossible for the person without training and practice to count the pulse correctly.

Respiration is breathing. Normal respiration is noiseless and without effort. If breathing is difficult or noisy, and sounds like wheezing or sighing, call the doctor.

Treatments and Drugs

Treatments and drugs should always be prescribed by a doctor. The following directions concerning a few of the most common treatments are meant only to help the nurse in following the doctor's orders.

Sponge Bath to Reduce Temperature.—Take the temperature and record it. Prepare the patient as for a cleansing bath. Begin with the face, sponging each part with cold water. Do not dry the skin, but let the drying take place by evaporation. Sponge each part of the body for several moments. Take the temperature again, and record it.

Cold Pack to Reduce Temperature.—Protect the bed by covering it with a rubber sheet. Apply three bath towels wrung out of cold water. Place one over each arm, and one over the chest, and abdomen and leave them for a few minutes. Remove the towels and rinse in the cold water. Then place them over the lower limbs while the upper part of the body dries by evaporation. The lower limbs may be exposed to dry after removing the towels, while the nightgown is put over the shoulders.

A Foot Bath.—A foot bath may be given to a patient in bed in the following manner: Fold the covers from the foot of the bed over the patient's knees. Place the foot tub in bed on oilcloth or

on several layers of paper, covered with an old blanket. Have the tub one-third full of water, as hot as the patient can stand; place the feet in the tub and cover the legs with a bath towel and a blanket. Add hot water from time to time, holding your hand over the patient's feet to make sure that the water is not too hot. Soak the feet for 15 or 20 minutes. Remove the tub from the bed and dry the feet gently, patting rather than rubbing, then apply some oil, vaseline or lotion to the feet.

A Hot Pack.—Protect the bed with a large rubber sheet and thin blanket. Remove the patient's nightgown, and cover her until ready to apply pack. Wring a wool or part wool blanket out of hot water, using a clothes wringer if possible. The water must be hot, as the necessary handling cools it rapidly. Cover the patient with the hot blanket, tuck the sides well under the patient's body, using care not to burn the patient. Replace the dry blankets over the patient and bring the rubber sheet up around and over the whole.

Leave the patient in the pack for the period ordered by the doctor. If the pack is to be renewed, a second blanket must be wrung out and made ready to apply before the cooler one is removed. Make the patient drink freely when in the hot pack.

Mustard Pack.—Mix 1 to 2 tablespoons of mustard with a little cold water. Add 1 quart of hot water to it. Dip two bath towels into this solution, wring out and apply to chest, under the arm and back, crossing the towels over chest and over back. Cover with dry cloth. Leave on until skin is reddened. Remove, pat the skin dry, apply vaseline or oil and cover with dry cloth or pneumonia jacket.

Hot Applications.—In applying either dry or moist heat the danger of burning or scalding the patient must be constantly kept in mind.

Stupes or hot compresses are cloths, preferably of flannel or flannelette, wrung out of boiling water until as dry as possible, then applied to the skin. Each stupe should be three or four times as large as the area to be covered. Two are needed so that one may be prepared before removing the other. Vaseline or oil should be applied before putting on the stupe. To prevent the escape of heat and moisture, cover the stupe after it has been applied with a piece of rubber cloth or oiled silk and several thicknesses of flannel or cotton batting. Keep all in place with a bandage or a towel used as a bandage.

The doctor will tell how often the stupes are to be applied, but if the skin becomes irritated they must not be used until its appearance is again normal. Not many doctors are now ordering flaxseed poultices because they fear that if applied to broken skin, serious trouble may follow.

Cold Applications.—Cold may be used either dry, as icebags, or moist. For a cold compress use an old handkerchief or a piece of soft linen. Wring out of cold water and apply to skin which has been greased. Cover the compress with waxed paper and a dry cloth. In applying cold compresses to the eye a clean piece of gauze or cotton should be used for each eye.

Enemas.—An injection of fluid into the rectum is called an enema. An enema is generally used to empty the bowels, but is sometimes given to stimulate and nourish. An enema should not be given without the doctor's orders, and he will advise what kind to give.

For a simple enema one of the following is generally used: a solution of common salt, using one teaspoon of salt to a pint of water; or soapy water, made with white soap such as castile or ivory. Suds should not be used as they cause pain. The temperature of the water in ordinary cases should be about the same as that of the body.

Have the patient on the left side when giving an enema, or on the back with the knees flexed. Grease the nozzle of the tube and the rectum before inserting the tip, and expel some of the water through it to remove air. The flow of water should be slow to prevent pain. The can or bag holding the fluid should not be higher than 1 foot above the rectum. Withdraw the tube gently. No enema should ever be taken in the sitting position.

An enamel can is cleaner and cheaper in the end than the rubber bag. It can be boiled and disinfected, and does not deteriorate like rubber.

Douches.—Douches are used as a treatment in some diseased conditions. They should be ordered by a doctor and not used without his consent. Care should be taken to have the douche can perfectly clean and the douche tip boiled. The can should be hung low so the water will flow slowly and the patient should be on her back with the knees raised. If medicines are used in the douche, an enamel can should be used instead of a rubber bag.

Douches should not be given to a pregnant woman or following a confinement unless a special order is given by the doctor, then special care must be taken to have all things sterile.

Sprays and Gargles.—Sprays should always be prescribed by a doctor and administered by him unless he advises otherwise. Self-administered sprays are apt to carry the infection from the nose or throat to the middle ear.

Gargles are used for sore throats. Different drugs may be prescribed by the doctor, but the best home-made gargle is made by using one teaspoon of salt in a pint of hot water. However, a sore throat, no matter how slight, should always be under the doctor's care. Delayed treatment in a case of diphtheria or streptococcus infection may prove fatal to the patient.

Use of Drugs.—Modern medical practice increasingly emphasizes diet, rest, exercises, and other hygienic measures in the treatment of sickness. Drugs are used much less than they were a generation ago. Many people, however, still use drugs for every real or imaginary ailment, using them without consulting a doctor. Headache medicines, cathartics, and tonics are most common among the self prescribed group. Often some drug prescribed for one person in a family is used by the other members, notwithstanding that the medicine might have deteriorated, or that it might have a very different effect on the patient for whom it was not prescribed.

Headache is only a symptom of some trouble and might be a result of eye strain, indigestion, lack of proper elimination from the bowels or bladder, or some infection. A headache remedy might stop the pain but it does not remove the cause, and often makes things much worse by affecting the heart.

Cathartics used regularly form a drug habit. Constipation is often due to faulty diet and faulty habits. An ordinary case of constipation may be treated by proper diet, increased intake of water, and exercise. A habit of regular emptying of the bowels must also be formed. A doctor should always be consulted in more stubborn cases of constipation.

Self prescribed tonics are poor substitutes for proper diet, rest, and fresh air. Using them is like beating a tired horse. He goes faster, but is not really stronger. If in need of a tonic consult the doctor. "Health is not put up in bottles and cannot be purchased at drug stores, no matter what the label on the bottle may read."

The Medicine Chest

In case of an emergency, a few of the most important drugs should be in each home. Such drugs should not be kept on the pantry shelf but in a medicine chest, which may be constructed at

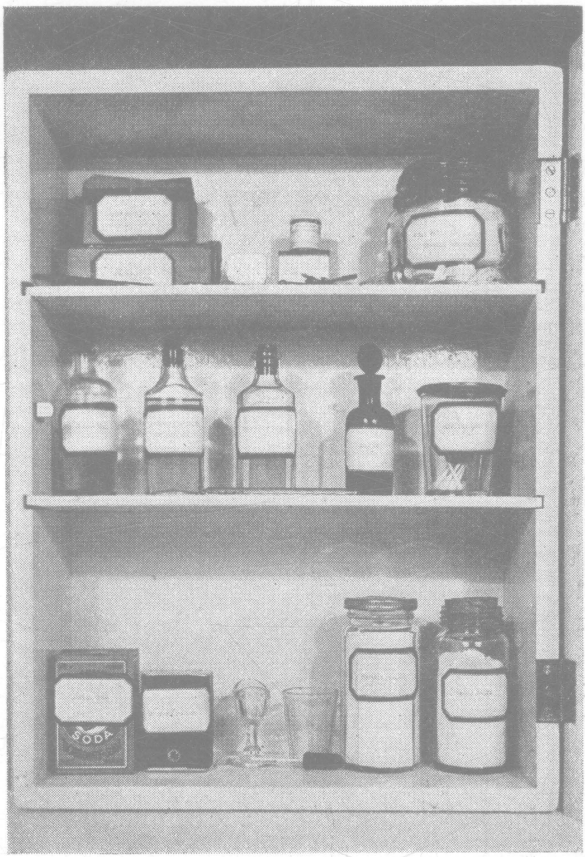


Fig. 21—A medicine chest for the home List of contents of the chest should be tacked on the inside of the door.

home if one cannot be bought. The chest should be so placed that children would not have access to it; if at all possible, it should be locked. All poisons should be kept by themselves and all supplies plainly labeled.

Suggested List of Supplies for the Medicine Chest

No patent medicine.

Iodine	In dark, glass-stoppered bottle to apply on cuts and wounds as first aid treatment.
Applicators	Bits of absorbent cotton wrapped around the end of toothpicks and kept in a sterile covered jelly jar.
Vaseline	In a tube, for burns, scalds, to apply before hot applications, etc.
Cotton	Two small packages of absorbent cotton, one unopened for emergencies.
Carron oil	Kept in the kitchen to apply to burns. It is a mixture of equal parts of raw linseed oil and lime water.
Castor oil	For use in cases of diarrhea and indigestion, but not to correct constipation. Should not be given to children in milk or other necessary foods. Mixing it with lemon juice and a pinch of soda makes it foam and easier to take.
Salts of some kind	In case of cold, hives, etc.
Milk of magnesia	For infants as a laxative, but if baby is subject to constipation a doctor should be consulted.
Aromatic spirits of ammonia	A stimulant. Dose, ½ to 1 teaspoon in a small amount of water.
Camphorated oil	Applied hot to skin in bronchitis, colds, cough.
Baking soda	To stop vomiting, sips of baking soda and water. Compresses in poison ivy.
Boric acid	Saturated solution as an eye-wash, for hot applications.
Normal salt solution	For cleansing sores.
Mustard powder	In closed tin box for hot mustard stupes or to cause vomiting (one teaspoon mustard to a glass of lukewarm water).
Lysol	An antiseptic used generally as a 1 or 2 per cent solution.
Box of sterile dressings	Some of them prepared at home as described later. Gauze dressings may also be purchased at the drug store.
Adhesive plaster	To hold dressings in place, for strapping sprains, etc. It should be kept in an air-tight box as it dries out and loses its stickiness.
Safety pins	To fasten on dressings.
Medicine dropper	
Pair of scissors	
Clinical thermometer	
A syringe outfit and hot water bag	If not possible to have both, a combination set may be used.

Preparation of Normal Salt Solution

1 pint boiling water
1 teaspoon salt

Put in a clean bottle, cork lightly. Put the bottle of solution into a pan of warm water. Bring to boil and boil five minutes to sterilize the solution. Cork tightly, and keep corked when not in use.

Preparation of Boric Acid Solution

1 pint boiling water
As much boric acid as will dissolve (about 2 teaspoons)
Keep in a clean bottle or jar. Keep well covered.

Approximate Measures

1 ordinary drinking glass holds 8 ounces or 1-2 pint
6 teaspoons are equal to 1 ounce
2 tablespoons are equal to 1 ounce
2 teaspoons are equal to 1 dessertspoon
60 drops are equal to 1 teaspoon of most drugs
1 teaspoon is equal to 1 dram

Sterilization of Dressings for the Medicine Chest

For slight injuries pieces of old linen and pieces of gauze should be kept on hand. Wash the pieces thoroughly, dry, press with a very hot iron, fold or roll immediately and put into a clean, tightly covered box or jar. Wash your hands well before ironing and handling these pieces.

First Aid in Accidents and Common Ailments

Many accidents could be prevented. In many instances, accidents are the direct result of carelessness. In case of a serious accident call a doctor at once. Do not get excited and do not hurry. Think twice before you do anything for the patient, and think calmly. Do not allow people to crowd about the patient; the patient needs all the air available. Loosen tight clothing. Have the patient lie down, and do not raise the head unless the face is flushed.

Fig. 22—A group of Franklin County leaders at a care-of-the-sick demonstration. a.—Applying a tourniquet; b.—bandaging an ankle (see Sprains, p. 30).

Hemorrhages.—Even if patient is unconscious, do not give stimulants without the physician's order. Elevate the bleeding part in case of severe bleeding. Apply pressure of a clean gauze dressing over the bleeding point; if nothing sterile is available, press directly with the finger or press the artery with your finger near the bleeding point.

In bleeding from an arm or leg apply a tourniquet to the upper arm or leg (Fig. 22a). A tourniquet is a strip of cloth or bandage

(a handkerchief may be used) tied around the arm or leg with a double knot. A stick is then inserted into the knot and the knot twisted until the bleeding stops.

Do not leave the tourniquet on too long. Loosen it at the end of half an hour, then tighten again if the patient is still bleeding. Never leave it on longer than one hour and remove it as soon as the bleeding is stopped. A knot tied in the bandage used for the tourniquet, or a folded cloth placed over the artery or vein, will greatly increase the pressure.

In abdominal hemorrhage, in typhoid, or in postpartum hemorrhage in childbirth, elevate the foot of the bed, keep the patient very quiet, apply cold to the abdomen, and do not fail to call the doctor.

In a hemorrhage from the lungs, raise the patient's head and shoulders, apply cold to the chest, and have the patient eat small pieces of cracked ice.

Sunstroke.—Sunstroke is the result of exposure to direct sun rays which affect the head and the neck. The rays act on the body by elevating temperature which might rise to 105 to 110 degrees or even higher, and by exciting the brain and all the nerve centers. Sometimes death occurs in a short period. Usually there is at first a peculiar pain in the head, followed by dizziness and often loss of consciousness. The skin is dry and hot, face flushed, pulse rapid, breathing deep and labored.

Treatment of sunstroke consists of lowering the temperature of the patient by cold compresses or ice cap to the head, and by cold packs or cold bath to the body, using constant friction to prevent chilling. The temperature should be taken frequently by rectum as there might be a sudden drop below normal. If the temperature drops below normal stimulants might have to be used.

A physician should always be called in a case of sunstroke, but treatments as described above should be given awaiting his arrival.

One attack of sunstroke predisposes to another and therefore a person who has suffered one should avoid undue exposure to sun rays.

Apoplexy.—Send for a doctor. Keep the patient lying down, wth the head and shoulders slightly raised. Place ice or cold cloths to the patient's head and hot bottles to the feet. Do not give stimulant. The patient's face is flushed, sometimes almost purple, in apoplexy.

Wounds.—Slight cuts and wounds may be taken care of at home. If the cut is deep and not clean it is safer to have a doctor dress and treat it, because of the danger of lockjaw or other serious results of infection.

A small amount of bleeding cleanses the wound. If it does not bleed, it is well to massage from the wound to separate the edges and to make it bleed. In dressing a wound apply iodine. Allow to dry and cover the wound with a piece of sterile gauze dressing. Do not use nonporous material for dressing wounds. If the cut is dirty and no doctor available, apply a small amount of peroxide of hydrogen, then wash it out with a sterile salt solution and sterile bits of

Fig. 23 (a) Temporary splint. (b) A sling. (c) Reverse bandage on an arm. (d) Four-tailed bandage.

cotton. Wash your hands thoroughly with soap and a stiff nail brush, before dressing the wound. Do not dry your hands with a towel.

If the skin around the wound is dirty, clean it with cotton dipped in a boiled soap solution. Wash from the edge of the wound towards the outside. If the skin is greasy clean it with benzine or gasoline in the same way as with soap solution.

A gauze dressing over the wound may be held in place with a few narrow strips of adhesive plaster, then the air will not be en-

tirely excluded. To remove the adhesive, rub a little vaseline over the strips and they will come off easily without irritating the skin.

Fractures.—All fractures must be treated by a doctor, as the bones must be set right. First aid in fractures consists in keeping the injured part from being moved. This may be done by the application of temporary splints (Fig. 23a), then the broken bone will not protrude through the flesh. If the skin is broken do not cover the wound with the splint. Dress the wound with a sterile gauze dressing. (See Wounds, p. 28, and Bandaging, p. 34.) Anything stiff enough may be used for a temporary splint, such as a light weight board, an umbrella, sticks of wood, or stiff cardboard. Either one of these is tied to the side of the broken arm or leg.

In a fracture of the arm a sling is applied after the application of splints to hold the arm in a horizontal postion (Fig. 23b). In the fracture of a rib a stout towel tied snugly around the chest will ease the pain while waiting for the doctor.

Watch that the splints are not too tight. This may happen if there is considerable swelling after the splints are applied. Splints which are too tight restrict the circulation of the blood, and too loose a splint does not hold the bone in the proper position.

Sprains.—Elevate the affected part. Apply a cold compress at first, use ice if possible. Bandage firmly to prevent motion (Fig. 22b). If pain becomes severe apply hot applications or a hot water bag.

Bruises.—Apply cold water or witch hazel compresses. Iodine may be applied at first but the application should be very light.

Burns.—In a superficial burn exclude the air by applying a bandage and either carron oil (a mixture of equal parts of lime water and linseed oil), castor oil, vaseline or any other kind of perfectly clean oily substance. Take care to protect blisters from infection.

Do not apply flour because this hinders healing. If the burn is deep or covers a large surface, call the doctor.

Fainting.—The patient's face is usually very pale and the skin cool and moist. Lay the patient down with the head low. Loosen all clothing. Give plenty of fresh air. Sprinkle a little cold water on the face. If the patient can swallow, give one-half to one teaspoon of aromatic spirits of ammonia in a half glass of water, or strong tea or black coffee. Keep the patient quiet for a while after the fainting spell.

Convulsions.—If the patient is a child put the patient into a hot bath or a hot pack. Be careful not to scald the patient. Keep a

cold cloth on the patient's head. After removing from the bath or pack, wrap the patient warmly and clean the bowels by giving a warm enema.

With an adult, keep the patient flat on the back, loosen the clothing and allow plenty of fresh air. Protect the tongue from being bitten by the patient by placing a folded piece of cloth, the handle of a spoon, or a stick wrapped with a cloth between the teeth.

People suffering with convulsions should always be under a doctor's care.

Croup.—In common croup relief may be obtained by applying a cloth wrung out of cold water to the neck and chest and covering this with a dry cloth. Hot applications to the chest and neck or hot steam inhalations are also helpful, but special care must be taken afterwards not to expose the patient to cold. Vomiting will often relieve strangling. Tickle the throat about the tonsils with the handle of a spoon to induce vomiting. Syrup of ipecac is frequently used to induce vomiting.

Insect Bites, Stings, Ivy Poisoning.—Apply household ammonia or moistened baking soda to neutralize the acid which comes into contact with the skin in cases of insect bites or stings. In ivy poisoning, wash the part as soon as possible with strong soap suds, then apply cloths saturated in baking soda or boric acid solution. In severe cases have the doctor treat the poisoning.

Frostbite.—Rub gently with snow or cold water to restore the circulation. Apply some vaseline or oil to the skin. Do not use heat and do not bring the patient near a stove.

Drowning.—Clean the mud from the mouth and nose. Turn the patient face down and clasp around the waist. Raise the patient by the waist and hold in this position for a few seconds to expel the water from stomach and throat. Turn on the back and begin artificial respiration. Keep the body warm and give hot drinks. A few drops of tincture of ginger in hot water will warm up and stimulate the patient.

Artificial Respiration.—The Sylvester method.—Put the patient on the back; turn the head to the side. Put a rolled coat or small log between the patient's shoulders to raise the chest. Kneel just above the patient's head and catch both arms below the elbows. Draw the arms outward gently and hold for about two seconds. Then bring the arms down till the elbows press against the chest

for about two seconds. Continue at the rate of 15 times per minute. This may have to be kept up for an hour or longer. Keep the patient warmly covered during the whole time. When the patient begins to breathe massage legs and arms towards the heart to help the circulation.

The Schaeffer method.—Place patient with the face down, head turned sideways. Press ribs, then loosen pressure, at the rate of normal respiration.

Gas Poisoning.—This may be due to coal or illuminating gas, also to gases present in wells, underground tunnels, or cellars. Carry the patient to fresh air. Put smelling salts or aromatic spirits of ammonia to the nose but do not hold it there too closely or too long. Call the doctor. If the patient is unconscious begin the artificial respiration described under "Drowning" until the doctor arrives.

Nausea and Vomiting.—Stop all food. Give weak tea, weak soda water, ice, or ginger-ale. Hold the patient's head while vomiting. Record the character of vomited matter. Call a doctor if vomiting is persistent. A cold compress to throat or mustard plaster over the stomach may give relief.

Diarrhea.—Stop all food and give castor oil. Call the doctor in a severe case. Keep the body warm and keep the patient as quiet as possible.

Colic.—Stop food. Give hot water to drink. Apply heat to the abdomen. Give a hot enema. Consult the doctor as to further treatment.

Ear Ache.—Always consult the doctor. It is very dangerous to neglect ear ache. Do not put oil into the ear. Apply dry heat or ice bag to relieve pain if unable to have the doctor at once. Apply an ice bag and avoid heat if there is danger of a mastoid abscess.

Foreign Bodies in the Eye and Ear.—Do not rub the eye. Do not put into the eye a flaxseed; do not try to remove the object with a pencil or other stiff or sharp instrument.

Draw the upper lid down over the lower several times. If this does not help, turn the upper lid over a match and remove the object with a corner of a clean handkerchief. Wipe towards the ear and never towards the nose. Flush the eye with salt solution.

If an insect gets into the ear wash out the ear with warm water. This will often drown the insect and wash it out. A little piece of cotton saturated with gasoline and held close to the ear will anaesthetize the insect, then it can be washed out with warm water. If gasoline is used, be careful to avoid an open flame.

Poisons and Antidotes

Ascertain if possible the kind of poison taken. If this cannot be done, give white of egg and milk.

The following list of poisons and antidotes is taken largely from the "Nursery Guide," by Louis W. Sauer, M.D.

In case of accidental poisoning one should do as follows:

1. Send for the physician at once, telling him what was taken.

2. When the poison is not an acid or strong caustic, vomiting should be induced. This may be accomplished by pressing down the tongue with a finger or spoon, or by giving syrup of ipecac in large doses.

3. The poison should be neutralized as soon as possible.

4. Give from 5 to 10 drops of aromatic spirts of ammonia in a tablespoon of water as a stimulant in case of threatened collapse.

Poison	Antidote and Treatment
Acids: Acetic, hydrochloric, sulphuric, nitric	Baking soda, milk of magnesia, or soap and water then olive or sweet oil (no emetic).
Carbolic, lysol, etc.	Epsom salts, or soap and water (no emetic); externally for burns, 50 per cent alcohol.
Oxalic	Emetic, then lime water, chalk, or tooth powder and water.
Aconite	Emetic, stimulation.
Alcohol (brandy, whisky, etc.)	Emetic, cold douche, enema; apply external heat, friction.
Alkalies (ammonia, caustic)	Vinegar, lemonade, then olive oil or sweet oil (no emetic).
Ammonia (see Alkalies)	
Arsenic (Fowler's solution, Paris green, rat poison, depilatories)	Emetic, milk or white of eggs, then emetic; give arsenic antidote as soon as possible (fresh mixture of tincture of iron and calcined magnesia); laxatives.
Atropine (see Belladonna)	Emetic, coffee, cold to head, stimulation.
Belladonna (atropine)	
Bichloride of mercury (see Mercury)	
Carbolic (see Acid)	
Caustic (see Alkalies)	

Corrosive sublimate (see Mercury)	
Cough syrups (see Opium)	
Gas (illuminating, coal fumes)	Fresh air, artificial respiration, stimulation, strong coffee by mouth or high enema; warm bath with cold douche.
Hydrochloric acid (see Acid)	
Iodine	Starch or flour mixed with water or milk, then emetic, stimulation.
Laudanum (see Opium)	
Lye (see Alkalies)	
Matches (see Phosphorus)	
Mercury (bichloride of mercury, corrosive sublimate)	Emetic, then white of egg, milk, or one teaspoon tannic acid in a cup of water.
Morphine (see Opium)	
Nitric acid (see Acid)	
Nux Vomica	Emetic, then tannic acid solution (one teaspoon to cup); or 10 grains bromide of soda.
Opium (cough syrups, laudanum, morphine, paregoric, soothing syrups, etc.)	Emetic, strong coffee, keep awake for 12 to 24 hours, cold douche, artificial respiration.
Oxalic acid (see Acid)	
Paregoric (see Opium)	
Paris green (see Arsenic)	
Phosphorus (matches, rat and roach pastes)	Emetic, white of egg, magnesia in large doses; no milk or oil
Poisonous plants; jimson weed, mushrooms, deadly nightshade	Tannic acid; strong tea or coffee. Artificial respiration. Stimulants.
Ptomaine poisoning (spoiled food)	Emetic; castor oil; stimulants.
Rough on Rats (see Arsenic)	
Silver nitrate (lunar caustic)	Emetic, one teaspoon of salt to one cup of water, then milk or white of egg.
Stearate of zinc	Emetic; then milk or white of egg.
Sulphuric acid (see Acid)	
Tobacco	Emetic, milk, heat and friction of extremities, stimulation.

How to Make and Apply Bandages

It is a great convenience to understand how to make and apply certain kinds of bandages. The three kinds which are used most are: the triangular, the roller, and the four-tailed bandage.

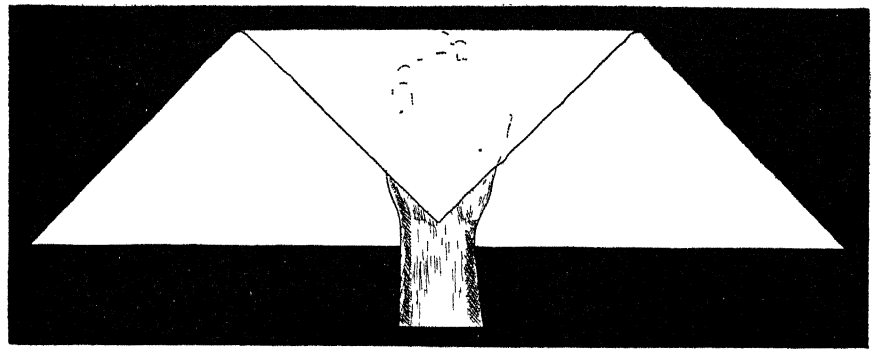


Fig 24—A piece of cloth 2 feet square folded once to make a triangular bandage for the hand—step 1 Second and third steps are shown in Figs 25 and 26.

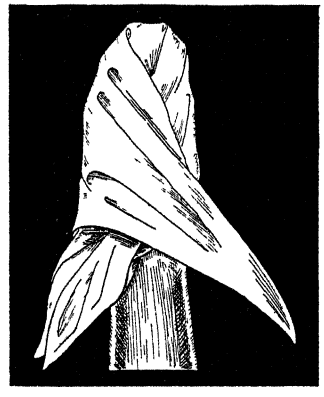


Fig 25—Second step in applying a triangular bandage to hand

Triangular Bandage.—The triangular bandage (Figs. 24, 25, 26) is generally made from unbleached cotton cloth, but pieces of bed sheet, pillow cases, napkins, diapers, and handkerchiefs may be used. Take a yard square piece of cloth, fold diagonally as a support for a broken or sprained arm (Fig. 23b) or fold into a scarf and use on any part of the body.

For hand or foot bandage use a smaller square (see Figs. 24, 25, 26 for steps in bandaging).

Roller Bandages.—Roller bandages are made by taking a strip of any material—cheesecloth or gauze for wounds, and firmer material like unbleached muslin or flannel to give support—and rolling them very firmly into an even roll. The width of the bandage will vary according to its use. For finger bandages 1 inch bandages are used. For bandaging a larger part of the body, the width of the bandage may be from 2 to 3 inches. These bandages can be purchased, but it is well to know how to make them at home.

To apply a roller bandage hold the roll firmly, apply the end of the bandage where it is desired to start bandaging. Fasten the end by passing the roll around the part being bandaged, covering the end securely. Continue passing the roll around the injured part until properly covered. If one part of the injured member is larger than another part, the reverse must be used.

Fig. 26—Triangular bandage applied to hand.

To make the reverse, place the thumb of the left hand on the lower edge of the bandage to hold it in place, loosen the bandage between the hands and turn the roll half over towards you. Pass the roll under the part being bandaged, keep the lower edge of the bandage parallel with that of the turn below, reverse again at the proper point, and so on. The reverses should be made so they lie in the center of the bandaged part or on its outer side, and all reverses should be in one line along the part bandaged (Figs. 27 and 23c).

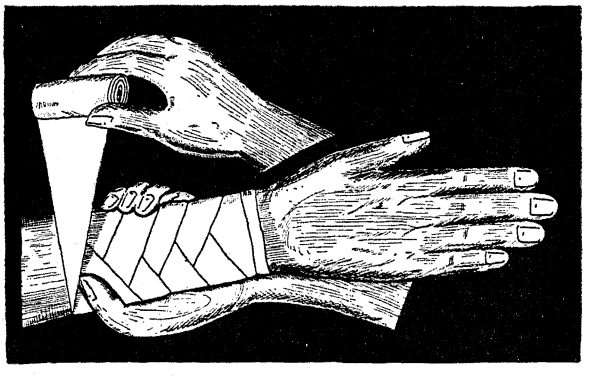


Fig. 27—Reversing a roller bandage on the arm.

Four-tailed Bandage.—The four-tailed bandage consists of a strip of cloth with both ends split. It is easily applied over a heel, chin, knee, or eye, the center of the bandage remaining on the injured part, the ends crossed and tied around (Figs. 28 and 23d).

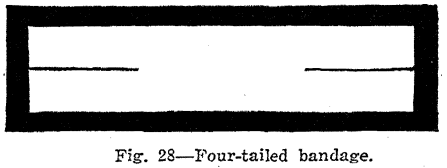


Fig. 28—Four-tailed bandage.